WE CLAIM AS OUR INVENTION:

1. A dissector blade assembly suitable for forming a generally circumcorneal interlamellar channel in an eye comprising:

a blade having a cross-section, which blade is in the form of a major arc having a diameter in a plane about an axis perpendicular to that plane, having a dissecting end and a blade support end, and

a blade support attached to the blade support end in which the blade support is at an angle of up to about 80° to the plane of the blade.

2. The blade assembly of claim 1 in which the blade support is at an angle between 10° and 50°.

3. The blade assembly of claim 2 in which the blade support is at an angle of 34° (±5°).

4. The blade assembly of claim 1 in which the blade cross-section is rectangular or is hexagonal and having two opposing sides of the blade which are longer than the remaining four sides.

5. The blade assembly of claim 4 in which the cross-section is positioned such that it forms a cone angle of 112° (±30°).

6. The blade assembly of claim 1 additionally comprising a generally cylindrical dissector barrel having an axis substantially coincident to the blade axis, said barrel connected to the blade support and having an inside diameter and an outside diameter.

7. The blade assembly of claim 6 in which the diameter of the arc of the blade is less than the inside diameter of the dissector barrel.

8. The blade assembly of claim 7 in which substantially all of the blade may be seen in the viewing end of the dissector barrel.

9. The blade assembly of claim 6 in which the diameter of the arc of the blade is less than the inside diameter of the dissector barrel.

10. The blade assembly of claim 6 in which the ratio of the length of the barrel along its axis to the diameter of the arc of the blade is between about 0.25:1 and 15:1.

11. The blade assembly of claim 10 in which the ratio is between 0.4:1 and 1:1.

12. The blade assembly of claim 10 in which the ratio is at least about 1:1 and less than about 3:1.

13. The blade assembly of claim 10 in which the ratio is at least about 3:1 but less than about 15:1.

14. The blade assembly of claim 1 in which the blade dissecting end is rounded.

15. The blade assembly of claim 1 in which the blade dissecting end is blunt.

16. A dissector blade assembly suitable for forming a generally circumcorneal interlamellar channel in an eye comprising:

a blade having a cross-section, which blade is in the form of a major arc in a plane about an axis perpendicular to that plane, having a dissecting end and a support end,

a blade support attached at one end to the blade support end of the blade and at the other end to a dissector barrel having an axis substantially coincident to the blade axis, and

a generally cylindrical dissector barrel having a blade support end, a viewing end, an inside diameter, an outside diameter, and an axis substantially coincident to the blade axis.

17. The blade assembly of claim 16 in which the blade support is at an angle of up to about 90° to the plane of the blade.

18. The blade assembly of claim 17 in which the blade support is at an angle between 10° and 80°.

19. The blade assembly of claim 18 in which the blade support is at an angle of about 34° (± 5).

20. The blade assembly of claim 16 in which the blade cross-section is rectangular or is hexagonal and having two opposing sides of the blade which are longer than the four remaining sides.

21. The blade assembly of claim 16 in which the cross-section is positioned such that it forms a cone angle of 112° (± 30°).

22. The blade assembly of claim 16 in which the diameter of the arc of the blade is less than the inside diameter of the dissector barrel.

23. The blade assembly of claim 22 in which substantially all of the blade may be seen in the viewing end of the dissector barrel.

24. The blade assembly of claim 16 in which the ratio of the length of the dissector barrel along its axis to the diameter of the arc of the blade is between about 0.25:1 and 15:1.

25. The blade assembly of claim 24 in which the ratio is between 0.4:1 and 1:1.

26. The blade assembly of claim 24 in which the ratio is at least about 1:1 and less than about 3:1.

27. The blade assembly of claim 24 in which the ratio is at least about 3:1 but less than about 15:1.

28. The blade assembly of claim 16 in which the blade dissecting end is blunt.

29. The blade assembly of claim 16 in which the blade dissecting end is rounded.

30. A corneal vacuum centering guide and dissector assembly comprising a support base having a proximal end; a distal end; a central section having a wall with a generally cylindrical bore with a central axis which central section extends between the proximal and distal ends of the support base, the cylindrical bore having a length and a diameter and where the ratio of the length to the diameter is between about 0.25:1 and 15:1, and an annular vacuum chamber located at the proximal end

and adapted to create an annular vacuum space when placed against the eye.

31. The assembly of claim 30 in which the annular vacuum chamber has an inner wall and an outer wall and at least one of the inner and outer walls have integral ridges or vanes which are adapted to extend down to and contact the eye during use.

32. The assembly of claim 31 in which the vacuum chamber contains integral ridges.

33. The assembly of claim 31 in which the vacuum chamber contains radial vanes.

34. The assembly of claim 30 in which the ratio is between 0.4:1 and 1:1.

35. The assembly of claim 30 in which the ratio is at least 1:1 and less than about 3:1.

36. The assembly of claim 30 in which the ratio is at least 3:1 but less than about 15:1.

37. The assembly of claim 30 in which the vacuum chamber contains an insert detachably mounted to the proximal end of the support base which insert contains short pins mounted to engage the cornea during use.

38. The assembly of claim 30 additionally comprising a corneal centering and fixation guide having an outer diameter which slidably fits within the cylindrical bore of the support and a reticle coincident with the central axis of the support base.

39. The assembly of claim 30 additionally comprising a knife adapted to place a small incision in the eye.

40. The assembly of claim 38 additionally comprising a viewing port through the central section wall.

41. The assembly of claim 30 additionally comprising the dissector blade assembly of claim 4.

42. The assembly of claim 30 additionally comprising the dissector blade assembly of claim 23.